L833/rk25

A-0U04-000065

ER PROGRAM DATA ASSESSMENT SUMMARY REPORT FORM

Bato	ch No. <u>8903L833</u>		Site Background Characterization
Lab	oratory R.F. Weston-Lion	ville	No. of Samples/Matrix 5/Water
sov	W # 10/86 (Rev. 2/88)	, , , , , , , , , , , , , , , , , , ,	Reviewer Org. TechLaw, Inc.
Sam	ple Numbers <u>SW094001.</u>	SW095001, TB03	2789, SW095001FB, SW094001D
		<u>.</u>	
		Data Ass	sessment Summary
		VOA	Comments
1.	Holding Times	<u>A</u>	Holding times greater than 7 days for aromatics, Action Item 1
2.	GC/MS Tune/Instr. Perf.		
3.	Calibrations	_A	3 RRFs out in each calibration, 1 RSD out, Action Item 2
4.	Blanks	<u>A</u>	Method blank contamination, Action Item 3
5.	Surrogates	X	Surrogates out in Matrix Spike and MSD, Comment 4
6.	Matrix Spike/Dup.	<u>X</u>	Low spike recoveries, Comment 2
7.	Other QC	_X	Trip blank and Field blank contamination, Comment 1
8.	Internal Standards	<u>v</u>	
9.	Compound Identification	V	
10.	System Performance	X	Data processing errors, Comments 3 & 5
11.	Overall Assessment	A	Data acceptable with qualifications.
	 V = Data had no problems. A = Data acceptable but qualified due to R = Data rejected. X = Problems, but do not affect data. 	o problems.	
Data	a Quality: Data contained in th	is batch were reviewe	ed and found to be acceptable with qualifications. Acceptable,
quali	fied data may be used provided th	at individual values in	npacted by the "Action Items" listed below are appropriately flagged.
Refe	er to attached Results Summary Ta	ables.)	

Action Items: 1) 7 day holding times were not met for aromatic compounds	. The non-detects were estimated
(UJ) for all samples.	
2) 2-Butanone, 4-Methyl-2-pentanone and 2-Hexanone had RRFs less than	0.05 for both the initial and
continual calibrations. The non-detect values for these three compounds were re-	ejected (R) for all samples.
3) The blanks were contaminated with Methyl Chloride and Acetone. Non	e of the samples met the 10x blank
criteria for Methylene Chloride, therefore all samples were estimated and undet	ected(UJ). The Acetone values in
samples TB032789 and SW095001FB were estimated and undetected (UJ) as w	vell by not meeting the 10x rule.
4) Results which fall below the CROL level and were not previously qualif	fied will be estimated (J) unless
instrument detection limits are available.	· · · · · · · · · · · · · · · · · · ·
Comments: 1) Both the Field blank and Trip blank are contaminated with A	cetone and Methyl Chloride.
2) Trichloroethene recovery was low in both the matrix spike and MSD. T	his compound was a contaminant in
the samples. No action was taken because the value was below the CRQL and t	therefore the values were previously
qualified.	· · · · · · · · · · · · · · · · · · ·
3) Instrumentation identifications appeared to be unclear from labels on va	rious forms to those on sample raw
data. No action was taken.	
4) Two surrogate recoveries in the matrix spike and 1 surrogate in the matrix	ix spike duplicate exceeded QC
limits. No action was taken.	
5) The incorrect RRF values for VSTD50 were transcribed from the raw day	ata to form 6A. The initial
calibration five point curve must be generated within a twelve hour period. Cal	ibration data is not directly affected.
Note: Data Summary Tables are attached.	
Juthan W. Joth	1-16-90
Authory W. Noth Reviewer Signature	Date

TABLE #: 8903L833

SITE NAME: Background Characterization

CLP VOLATILE ORGANIC ANALYSIS: Low Water

ANALYTICAL RESULTS (ppb) Page 1 of 1

Sumple Further Mistachtoroxide Survey Mistachtoroxide	The state of the s							
4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/89 4/10/8 4/10/89 4/10/	Sample Number	VBLKLHV0394	AB1 SW094001	SW095001	TB032789	01FB	SW094001D	
Position of the plant Field Blank Field Blank Deplicate V 10 U V	Sampling Date		4/10/89	4/10/89	4/10/89		4/10/89	
DQ	8				Trip Blank		Duplicate	
No	7	-				1		
N			5	100	Ç	=	=	
N	Bromomethane	10	- -	10 04	2 2	, _	-	
N	Vinyl chloride	10	5	10 C	10 U	b	b	
V V S U V S U V S U V S U V S U V V S U V S U V V S U V S U V V S U V S U V S U V S U V S U V	Chloroethane	10	ŧ	10 U	10 C	5	>	
V V	Methylene chloride	8	_	3 m	m 9	3	3	
V V	Acetone	9	10 U	5 U	19 W		>	
V V	Carbon disulfide	2	ı	S U	5 U	5	5	
V V	1,1-Dichloroethene	5		2 ∩	5	1	Þ	
V V	1,1-Dichloroethane	5	5	5 U	5 U	i	5	
V S V	1,2-Dichloroethene (Total)	5	D	5 U	5 U		5	
A S U V S U V	Chloroform	5		2 J	5 U	•	5	
10	1,2-Dichloroethane	5		5 U	5 U	1	5	
V V	2-Butanone	10		10 U	10 U	5	b	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	,1,1-Trichloroethane	2	ח	5 U	2 0	l	5	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	arbon tetrachloride	5		7	0 S		1	
V V	'inyl acetate	10	Ы	10 U	10 U		1	
A S U V S U V	romodichloromethane	2	5	5 U	0 S		5	
A 5 U V 5 U V 5 U V 5 U V 6 U V 6 U V 6 U V 6 U V 7 U V 8 U	,2-Dichloropropane	5	ᅴ	5 U	5 U		n	
A 5 U V 5 U V 5 U V 6 U V 7 U	is-1,3-Dichloropropene	5	5	2 C	5 U		n	
V S U V S U V S U V V S U V V V S U V V V V	richloroethene	5	- 1	4			7	
N	ibromochloromethane	5	ı	5 U	5 U		n	
A 5 W A 5 W A 5 W A 5 W A 6 W A	,1,2-Trichloroethane	5.	- 1	2 C	5 U		b	
V S U V S U V S U V S U V S U V S U V S U V S U V V S U V V S U V V S U V S U V S U V S U V S U V S U V S U V S U V V S U V V S U V V S U V V S U V V S U V V S U V V S U V V S U V V S U V V V S U V S U V V S U V S U V V S U	Senzene	5	1	2 M	5 W	_	3	
V 5 U V 5 U V 5 U V 5 U V V V V V V V V	rans-1,3-Dichloropropene	5	5	5 U	5 U	1 1	5	
R 10 U R	зютогот	5	- 1	5 C	5 U		b	
N	-Methyl-2-pentanone	10		10 U	10 U	l i	i	
V S U V S U V S U V V V V V V V V V V V	-Hexanone	10		10 U	10 U	1.	ı	
V 5 U V 5 U V 5 U V 5 U V V V V V V V V	etrachloroethere	5		5 U	5 U	ם	5	
A 5 W A 5 W A 5 W A 5 W A 6 W	,1,2,2-Tetrachloroethane	5	- 1	5 U	כ	b		
A 5 W A 5 W A 5 W A 5 W A 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1	oluene	5		2 W	3	3	ł	
A 5 W A 5 W A 5 W A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Shlorobenzene	5	3	2 2	3	3		
A 5 W A 5 W A 5 W A 10 W A 16 W A	Ethylbenzene	5		2 W	3	3		
0 0 16 DO V	Styrene	2		2 M	3	3	3	
0 0 16 DQ	(yienes (Total)	5	3	5 W	3	3	3	
0 0 16 DQ × ×	fotal Organic							
Ø > ∢	Soncentration (ppb)	14	17		0	0		
> ◀	Indicates the compound was not determined to the first of	eched above the Re	quired Quantitation	Link.			Δ;	
⋖ .	Toold cells approximate and the second	manotis idenimed of	iring tine queatity con	IIIOI FEVIEW.			>	
	Exercis canoration range, allute & re-	anayze. i– h i– hri					⋖	

Unidicates the compound was not deteched above the Required Quantitation Limit.

J. Quantitation is approximate due to limitations identified during the quality control review.

L833L/rk25

Acceptable with qualifications Rejected

E Exeeds calibration range, dilute & reanalyze.

CROL Contract Required Quantitation Limit in Micrograms per Liter (ug/L), Parts per billion (ppb).

ER DEPARTMENT DATA ASSESSMENT SUMMARY REPORT FORM

Batc	h No. <u>8903L833</u>		Site Solar Ponds	
Lab	oratory <u>Roy F. Weston - Li</u>	onville	No. of Samples/Matrix <u>4</u>	/Water
SOV	V # 10/86 (Rev. 2/88)		Reviewer Org. TechLaw	Inc.
Sam	ple Numbers <u>SW095001FB</u>	<u>, SW095001, S</u>	SW094001, SW094001D	
		Data A	Assessment Summary	
		BNA	Comments	
1.	Holding Times	V		
2.	GC/MS Tune/Instr. Perf.	V	_	
3.	Calibrations	X	Comments 1 & 2	
4.	Blanks	V	_	
5.	Surrogates	V		
6.	Matrix Spike/Dup.	X	Comments 3 & 4	
7.	Other QC	V		
8.	Internal Standards	X	Comment 5	
9.	Compound Identification	<u> </u>	_	
10.	System Performance	V		
11.	Overall Assessment	V		
	 V = Data had no problems. A = Data acceptable but qualified due to R = Data rejected. 	problems.		
	X = Problems, but do not affect data.			
Data	a Quality: (Refer to attached Da	nta Summary Table	es.)	
	- America of triving to minorion De			

Comments: 1) Several compounds had %RSDs greater than 30% in the 4/3/89 initial	al calibration. However, no
action is taken because there were no positive results for these compounds.	
2) The chromatogram for the continuing calibration of 4/6/89 was not submitted.	
3) The recoveries of 2,4-Dinitrotoluene and Pentachlorophenol exceeded spike reco	very criteria in the matrix
spike and matrix spike duplicate. No action is taken because results are not qualified s	olely on MS/MSD data.
4) The matrix spike duplicate analysis contained 720 ppb of Bis(2-ethylhexyl)phtha	late, while the corresponding
sample and matrix spike analysis contained none. This compound appears to have been	n introduced into the MSD
analysis through contamination.	
5) The peak area for the internal standard Perylene-d12 was below criteria in the me	thod blank. However, no
action is necessary because data did not appear to be adversely affected.	
Note: Data Summary Tables are attached.	
William T Fear	6/22/90
Reviewer Signature	Date

1 of 2 Page

8903L833 Solar Ponds TABLE #:

SITE NAME:

CLP SEMIVOLATILE ANALYSIS:

Low Water

ANALYTICAL RESULTS (ug/L)

Sw094001D 3/27/89 Pod Do	Sample Location							
Section Sect	Sample Number	S	SBLK	01FB	SW095001	SW094001D	SW094001	
Method Blank Field Blank Field Displicate Dod	Sampling Date				3/27/89	3/27/89	68/22/6	
(BNA) CPOL DO	Remarks	2	Aethod Blank	Field Blank		Field Duplicate		
March Marc	Semivolatiles (BNA)	CRQL					-	
10 10 10 10 10 10 10 10	Organic Compound	₽Ø/L	8					
10 10 10 10 10 10 10 10	Phenol	10			כ		J	
Abortsete 10 V 10	Bis(2 - Chloroethyl)ether	10			כ	1	1	
benzene 10 V 10 U V	2 - Chlorophenol	10		li	כ	ב		
Septication 10 V 10 <td>1,3 - Dichlorobenzene</td> <td>10</td> <td></td> <td></td> <td>5</td> <td>כ</td> <td></td> <td></td>	1,3 - Dichlorobenzene	10			5	כ		
Alteriore 10 V 10	1,4 - Dichlorobenzene	10			b	n	b	
benzene 10 V 10	Benzyl alcohol	10						
nnoinclean 10 V 10 <td>1,2 - Dichlorobenzene</td> <td>10</td> <td></td> <td></td> <td></td> <td>1</td> <td>Ы</td> <td></td>	1,2 - Dichlorobenzene	10				1	Ы	
copropyl)ether 10 V 10	2 - Methylphenol	9			5		1	
Including 10 V 10 I 10 I I	Bis(2-chloroisopropyl)ether	9			5	•	ı	
Propolemine 10 V 10 <td>4 - Methylphenol</td> <td>10</td> <td></td> <td></td> <td>b</td> <td></td> <td></td> <td></td>	4 - Methylphenol	10			b			
hare 10 V 10	N-Nitroso-di-n-propylamine	10			5	ı	1	
the characteristic series of the control of the characteristic series of t	Hexachloroethane	10		i i	5	1		
the control of the co	Vitrobenzene	10		1 1				
old 10 V 10	sophorone	10			כ			
phenol 10 V 10	2 - Nitraphenol	10			5			
50 52 V 52 V 50 V 51 U phenol 10 V 10	2,4 - Dimethythenol	10			∍			
Athonoxymethane 10 V 1	Senzoic Acid	20			1	1	ח	
phenol 10 V 10	3is(2-Chloroethoxy)methane	10						
voberizene 10 V 10 <td>2,4 - Dichlorophenol</td> <td>10</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td>	2,4 - Dichlorophenol	10			1			
tradenee 10 10 1 V 10 U	2,4 - Trichlorobenzene	10						
tipe 10 V I	Vaphthalene	10					1 1	
stadione 10 V In I	I - Chloroaniline	10			1 1			
ethylpthenol 10 V In	lexachlorobutadiene	10			1			
thalene 10 V In	4-Chloro-3-methylphenol	10		- 1	5			
cloperitadiene 10 V In	2-Methylnaphthalene	10			5			
ophenol 10 V V I I I I I I I I I I I I	Hexachlorocyclopentadiene	10			5	- 1		
ophenol 50 V 50 V 51 U thalene 10 V V 10 V <t< td=""><td>2,4,6-Trichlorophenol</td><td>10</td><td></td><td></td><td>5</td><td></td><td></td><td></td></t<>	2,4,6-Trichlorophenol	10			5			
thalene 10 V V 10 V V 10	2,4,5-Trichlorophenol	20		- 1	b			
50 62 0 62 0 50 0 61 0 relation 10 V V 10 N	2-Chloronaphthalene	10		1	b		i I	
relation 10 V 10 N 10 N 10	2-Nitroaniline	95			1 1	1 1	b	
ne 10 V 10 N 10 N 10 N 10 N 10 N 10 N 10	Jimethyl phthalate	10						
Name 10 V 10 10 V 10 V 10 N	\cenaphthylene	10		1	5		ב	
50 S2UV 52UV 52UV 50UV	,6-Dinitrotoluene	10			כ		ב	
	Hitrogniline	93		ח	b	A ∩ 05	5	
		4		S. C. Standard Co.				

3L633.WK1 Acceptable with qualifications Rejected

Naffd Valid

> < Œ

U Indicates the compound was not detected above the instrument Quantitation Limit.

J Quantitation is approximate due to limitations identified during the quality control review.

CROL. Contract Required Quantitation Limit in Micrograms per Liter (ug/L), Parts per Billion (ppb).

3L833.WK1

8903L833 Solar Ponds TABLE #:

SITE NAME: Solar PC

Low Water

ANALYTICAL RESULTS (ug/L)

N

ð N

Page

SW094001	SBLX SW092GOTF	Sample Location										
Day	DO	Sample Number		SBLK	O1FI	20	SW094001D	SW094001				
Do	Pack Depulsate Pack Depulsate Pack Depulsate Pack Depulsate Pack Depulsate Pack Depulsate Pack	Sampling Date			3/27/89		3/27/89	3/27/89				
No 10 No	DO	Remarks		Method Blank	Field Blank		Field Duplicate					
Doctor D	Do Do Do Do Do Do Do Do	Semivolatiles (BNA)	CRO									
V 10 U V 10 U V 10 U V V V V V V V V V	V 10 U V 10 U V 10 U V V 62 U V 50 U V 51 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V	Organic Compound	ug/L	8				8				2
V 52 U V 50 U V 51 U V 70 U V	V 52 U V 50 U V 51 U V 71 U U V	Acenaphthene	10		1	þ	D 05	5				3
V	V	2,4-Dinitrophenol	90			5	þ	þ				
V	V 10 U V	4-Nitrophenol	92			5	1	>				
V	V	Dibenzofuran	10			5	5	5				
V	V	2,4-Dintrotoluene	10		•	þ	ı	Ĭ.				
V	V 10 U V 10 U V 10 U V 10 U V V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U	Diethyf phthalate	10		1	1	1	L				
V 52 U V 50 U V 51 U V V 10 U	V 52 U V 50 U V 51 U V V 10 U	4-Chlorophenyl-phenyl ether	10		1.		1	5				
V 52 U V 50 U V 51 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V	V 52 U V 50 U V 51 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U	Fluorene	10		J	b	ı	5				
V 52 U V 50 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 1	V 52 U V 50 U V 10 U V 10 U V V 10 U V V 10 U V V 10 U V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	4-Nitroaniline	20			5	1	5				
V 10 U V 10 U V 10 U V 10 U V V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 1	V 10 U V 10 U V 10 U V 10 U V V V 10 U V V V 10 U V V 10 U V V 10 U V V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	4,6-Dinitro-2-methylphenol	20			5	ı	5				
V	V	N-Nitrosodiphenylamine	10			5	i	þ	ì			
V	V	4-Bromophenyl phenyl ether	10				1	ł.				
V	V	Hexachlorobenzene	₽		1	1		ł				
V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V V 10 U V 10 U V 10 U V V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V 10 U V V 10 U V V 10 U V 10	V 10 U V 10 U V 10 U V V 10 U V V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V V 10 U V V 10 U V V V V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	Pentachlorophenol	જ			i i	l	5				
V 10 U V 10 U V 10 U V 10 U V V V 10 U V 10 U V V V 10 U V 10 U V 10 U V V V V 10 U V 10 U V 10 U V V V 10 U V 10 U V V V 10 U V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V	Phenanthrene	우				i					
V 10 U V 10 U V 10 U V 10 U V V V V 10 U V V V 10 U V V V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V	Anthracene	9				ı	1				
V 10 U V 10 U V 10 U V V V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	N-n-butyl phthalate	9				1	ı				
V 10 U V 10 U V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V V <t< td=""><td>luoranthene</td><td>2</td><td></td><td></td><td></td><td>I</td><td>i</td><td></td><td></td><td></td><td></td></t<>	luoranthene	2				I	i				
V 10 U V 10 U V 10 U V V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V 20 U V V V 20 U V V V V 10 U V 10 U V V 10 U V V V V V 10 U V V V V V V V V V V V V V V V V V V	утеле	9				1	ı				
V 21 U V 20 U V 20 U V V V 10 U V 10 U V V V 10 U V 10 U V 10 U V V V 10 U V 10 U V 10 U V V V V 10 U V 10 U V V V 10 U V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V 10 U V V 10 U V V V V 10 U V V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 21 U V 20 U V 20 U V V V 10 U V V V 10 U V V 10 U V V 10 U V V V 10 U V V 10 U V V V V 10 U V V 10 U V V V V V V V V V V V V V V V V V V	kutyfbenzyl phthalate	9			Э,	l	1				
V 10 U V 10 U V 10 U V V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V V V 10 U V V V V V V V V V V V V V V V V V V	3.4-Dichlorobenzidine	8			า	1	ı				
V 10 U V 10 U V 10 U V V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V V 10 U V 10 U V 10 U V Indian 0 0 0 Doal V 10 U V Indian V V Indian	Senzo(a)anthracene	2			Ы	1 1					
V 10 U V 10 U V 10 U V V V 10 U V V V 10 U V V V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V Indirection 0 0 DO DO Port Billion (ppb). A R A R A	hrysene	٤		ı	כ		1				
V 10 U V 10 U V 10 U V V V V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V Indirection 0 0 Dod 0 0 Per Billion (ppb). A R A	is(2-ethylhexyl)phthalate	9		- 1	5	1	1 1				
V 10 U V 10 U V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V V V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	N-n-octyl prithalate	2		- 1	٦						
V 10 U V 10 U V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V V V 10 U V V V V V V V V V V V V V V V V V V	enzo(b)fluoranthene	2			5						
V 10 U V 10 U V 10 U V V V V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V V V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	Senzo(k)tituoranthene	9		- 1	- 1		1				
V 10 U V 10 U V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V V V V V V V V V V V V V V V V V V	venzo(a)pyrene	2		- 1	5						
V 10 U V 10 U V 10 U V V V 10 U V V V 10 U V V V V V V V V V V V V V V V V V V	V 10 U V 10 U V 10 U V V V V 10 U V V V V V V V V V V V V V V V V V V	ndeno(1,2,3-cde)pyrene	2		- 1	- 1	1	ii				
Umit. v 10 U V 1	V 10 U V 10 U V 10 U V LIMIR. V POR Billion (ppb).	Moenz(a,n)ammracene	2		- 1	- 1	- 1	5				
Umit. V V	Limit.	Senzo(g,h,t)perylene	2		5	ᅴ	٥	5				
Limit. V V Voice Billion (1995)	Limit. V V viral review. A per Billion (ppb). R	one sellinogalie proportional p		c		•	•					
Limit. V Iron review. A	Limit. Virol review. A per Billion (ppb).	Eventain (pps)		<u> </u>				0				
V A A A A A A A A A A A A A A A A A A A	rod review.		detected a	bove the instrumer	* Overthetion ! imit					alifier		
A Section (section)	per Billion (ppb).	Ouantitation is acromosimate due to	o limbation	R infantified during	the critelity control or	,				:		
	per sellon (ppo).	DO Contract Description Contracts		Secondaria de la compansión de la compan	and the state of t	Mew.			A Accepte	ble with qualification	2 2	

(07/03/90)

ER DEPARTMENT DATA ASSESSMENT SUMMARY REPORT FORM

Bate	ch No. <u>8903L833</u>		Site Solar Ponds
Lab	oratory Roy F. Weston -	Lionville	No. of Samples/Matrix 4/Water
SOY	W # 10/86 (Rev. 2/88)		Reviewer Org. TechLaw, Inc.
San	ple Numbers <u>SW094001</u>	. SW095001, SW0	
		-	
		Data Ass	essment Summary
		Pesticides/PCB	Comments
1.	Holding Times	<u> </u>	
2.	Instrument Performance	<u> </u>	
3.	Calibrations	X	Comment 1
4.	Blanks	X	Comment 2
5.	Surrogates	A	Action Item 1; Comment 3
6.	Matrix Spike/Dup.	V	
7.	Other QC	X	Comments 4.5
8.	Compound Identification	<u> </u>	
9.	System Performance	<u>V</u>	
10.	Overall Assessment	A	Data acceptable with qualifications.
	 V = Data had no problems. A = Data acceptable but qualified due to the R = Data rejected. X = Problems, but do not affect data. 	o problems.	
Data	a Quality: Data contained in the	nis batch were reviewed	d and found to be acceptable with qualifications. Acceptable,
quali	fied data may be used provided th	at individual values im	pacted by the "Action Items" listed below are appropriately flagged.
(Refe	er to attached Data Summary Tabl	e.)	

Action Items: 1) The Percent Recovery of surrogate Dibutylchlorendate (DBC) for	sample SW094001 is
reported as "I" on Form 2B. It is not clear what the actual recovery is, although the Case	e Narrative states that all
surrogate recoveries are within EPA OC limits. There appears to be a DBC peak on the	sample chromatogram
which has shifted late, but this is not identified by the laboratory as DBC. Therefore, al	l non-detected results in
sample SW094001 are estimated and undetected (UJ).	
Comments: 1) In the initial calibration on instrument 14, Aldrin's and DDTs %RSI	Os exceeded 10%.
Although no corrective maintenance is evident, no action is necessary because there we	re no positive results for
these compounds.	
2) The method blank was diluted 2x with no explanation offered.	
3) Form 2E indicated no Percent Recovery for sample SW094001 and "DBC" was	crossed off of the
chromatogram. However, a %D for DBC was inexplicably generated on Form 8E.	
4) The Form 1Ds indicate that 990 milliliters of sample was extracted for each sam	ple; however, the CROLs
were not adjusted accordingly. Therefore, the CROLS were corrected and the changed	results are reported on the
Data Summary Tables.	
5) The Form 9s in this batch did not include the multiresponse compounds (Aroclo	rs and Toxaphene). No
action is necessary; however, these compound should have been included.	
Note: Data Summary Tables are attached.	
Reviewer Signature	7-9-90
Reviewer Signature	Date

Page 1 of 1

SITE NAME: Solar Ponds
CLP PESTICIDES/PCB ANALYSIS: Low Water

ANALYTICAL FESULTS (ug/L)

Semple Location										
Semple Number		PBLK321	SW004001	SW095001	SW094001D	SW095001FB				
Sample Date			3/27/80	3/27/89	3/27/89	3/27/89				
Remarks		Method Blank	x10 Dilution	x10 Dilution	Duplicate	Field Blank				
Chlorinsted Pesticides	CROL	CROL x2 Dilution			x10 Dilution					
Analyte	NOV.	8		8	8	8	8	8	8	8
alpha - BHC	0.060		0.51 W A	V U 13.0	0.51 U V	0.061 U V				
bets - BHC	090'0		0.51 W A	0.51 U V	0.51 U V	0.051 U V				
delta - BHC	0.060		0.51 W A	V U 12.0	0.51 U V	0.061 U V				
gamma - BHC (Lindane)	090'0		0.51 W.A	V U 12.0	0.51 U V	0.051 U V				
Heptachior	050.0		0.51 W A	0.51 U V	0.51 U V	0.051 U V				
Aktrin	090'0		0.51 W.A	0.51 U V	0.51 U V	0.051 U V				
Heptachlor epoxide	090'0		0.51 W A	0.51 U V	0.51 U V	0.051 U V				
Endosulian	090'0		0.51 W.A	0.51 U V	0.51 U V	0.051 U V				
Dieidrín	0.10		1.0 W A	1.0 V	1.0 U V	0.10 U V				
4/4" - DDE	0.10		4.0 W A	1.0 V V	1.0 U V	0.10 V				
Endrin	0.10		1.0 W.A	1.0 V	1.0 V V	0.10 U V				
Endoeulian II	0.10		1.0 W A	1.0 V	1.0 U V	0.10 U V				
4.4 DOD	0.10		1.0 W A	1.0 V	1.0 U V	0.10 U V				
Endosulfan sulfate	0.10		1.0 UJ A	1.0 V	1.0 U V	0.10 U V				
44' - DOT	0.10		1.0 W A	1.0 U V	1.0 V V	0.10 U V				
Methoxychior	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Endrin Katone	0.10		1.0 W A	1.0 U V	1.0 U V	0.10 U V				
alpha - Chlordene	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
gemma - Chiordene	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Toxaphene	1.0		10 W A	V U 01	10 U V	1.0 V V				
Aractor - 1016	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Araclar - 1221	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Araclar - 1232	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Arador - 1242	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Arador - 1248	0.50		5.1 W A	5.1 U V	5.1 U V	0.51 U V				
Arador - 1254	1,0		10 W A	10 U V	10 U V	1.0 U V				
Arodor - 1280	1,0		10 W A	70 U V	10 U V	1.0 V V				
Total Chlorinated Pesticides (rob)	ı	•	•	0	0	0	O	c	c	c
E Exceeds cellbration range.							DO Deta Qualifier			

U Indicates the compound was not detected above the Instrument Quantitation Limit

J Quantitation is approximate due to limitations identified during the quality control review
CRQL Contract Required Detection Limit in Micrograms per Liter (ug/L), Parts per Billion (ppb)

A Acceptable with qualifications R Rejected

3L833/pcb

10 - 1 month of marker Color sale crang. Denne, GCMS, 11/140 + the sales of

OSZTIT COL CI	WESTON Analytics Use Only Samples Were: Calipped Pland Delivered NOTES:	2 Ambient or Aillead NOTES: 3 Received Brit Nin/ Leaking (Impoerly Sealed) Y NOTES: NOTES: 5 Received Witter NOTES:	COC Tape Was: 1 Present on Outer Package (V) 2 Unbroken on Outer Package (V) 3 Present on Sample NOTES: 2 COOKER A Unbroken on Sample NOTES: 2 COOKER A CO.C. Fores (No Active Cooker)	
Scord/Lab Work Request	Cossistant blood that that the	· Eg X X X X X X X X X X X X X X X X X X	- bna 3 - pest/pcb 4 - cyanida tci metals,Mo.8r.Cs.Li.bnc.0	25 7 7 7 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Custody Transfer	W Flats) #Type Container - O Volume 37-89 Preservative ANALYSES	S/NSD W 3-37-K*1 W W 2-37-K*1 W W W W W W W W W W W W W W W W W W W	Instructions; 1 = Vat (2)	100 100 100 100 100 100 100 100 100 100
WESTON Analytics Use Only SOL731 833	Rockwell 2029-33-9 9 9 Date Dut Janell Be (303) 980	Client IDDO.	m Solids m Lquids	Sant Sant

RFW Batch Number:	Client: ROCKW	ELL (ROCKY FLATS)	Pa:
Sample Information	/ac.		
DELI Betak ID	/B	7144 755 144	7144 750 144
RFW Batch ID:	3100-754-100	3100-755-100	3100-756-100 SW095001 UNFILTERED
Customer ID:	SW094001 UNFILTERED	SW094001 FILTERED	
ACCU-LABS SAMPLE ID:	9612-29790-8-1	9612-29790-8-2	9612-29790-8-3
Matrix:	LG CESET		
Radio Chemistry	•		
Gross Alpha	22Ø + 8Ø pci/l	18Ø + 7Ø pci/l	340 + 130 pci/l
Gross Betg	140 + 30 pci/l	100 + 30 pci/l	25Ø + 5Ø pci/l
Uranium 233, 234	68 4 4 pci/1) .5	78 + 5 pci/1 · 9	43 4 4 pci/1.9
Uranium 235	3.94 1.0 pci/1 6	4.2 = 1.2 pci/1.6	2.5 + 1.0 - pci/1.5
Uranium 238	43 ± 3 / pci/1 \ .9	47-4 / pci/1.8	25+3/ pci/1.7
Strontium 89+90	-Ø.1 + Ø.4 pci/I	Ø.3 + Ø.5 pci/1	0.2 ± 0.5 pci/1
Plutonium 239, 240	0.28 4 0.03 pci/1 .003	8.88 + 8.81 pci/l · 0/	11 10 1./2 pci/1.01
Americium 241	8.85 + 8.86 - pci/1 .01	-0.81 + 0.03 pci/l .004	2.2 \(\text{0.1} \) pci/1 .0/
Cesium 137	$\emptyset.3 \pm \emptyset.6$ pci/1	Ø.5 + Ø.6 pci/l	0.2 + 0.7 pci/1
Tritium	2800 + 200 pci/1	b.5 <u>-</u> b.6 pc1/1	2700 + 200 pci/l
Radium 226	1.3+0.4 pci/1-,20	0.6+0.3 pci/12	4.4 # Ø.8 pci/1 .2
Radium 228	(13) _ DOT DOT/ 11 1 2 2	2.0 <u>-</u> 2.3 pc2/1 - 2	5.3 + 4.0 pci/l
NUGIUM 220,			3.3 - 4.D PC1/1
			- ' '
		ELL (ROCKY FLATS)	- ' '
			- ' '
RFW Batch Number:	Client: ROCKW	ELL (ROCKY FLATS)	
RFW Batch Number: Sample Information RFW Batch ID:	Client: ROCKW	3100-758-100	3100-759-100
RFW Batch Number: Sample Information RFW Batch ID: Customer ID:	Client: ROCKW 3100-757-100 SW095001 FILTERED	3100-758-100 SW094001D UNFILTERED	3100-759-100 SW094001D FILTERED
RFW Batch Number: Sample Information RFW Batch ID:	Client: ROCKW	3100-758-100	3100-759-100
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix:	Client: ROCKW 3100-757-100 SW095001 FILTERED	3100-758-100 SW094001D UNFILTERED	3100-759-100 SW094001D FILTERED
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry	Client: ROCKW 3100-757-100 SW095001 FILTERED	3100-758-100 SW094001D UNFILTERED	3100-759-100 SW094001D FILTERED
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Sross Alpha	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4	31ØØ-758-1ØØ SWØ94ØØ1D UNFILTERED 9612-2979Ø-8-5	31ØØ-759-1ØØ SWØ94ØØ1D FILTERED 9612-2979Ø-8-6
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4	3100-758-100 SW094001D UNFILTERED 9612-29790-8-5 120 ± 70 pci/1 100 ± 30 pci/1	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l
RFW Batch Number: RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 ± 5 pci/l, 9	3100-758-100 SW094001D UNFILTERED 9612-29790-8-5 120 ± 70 pci/l 100 ± 30 pci/l 70 € 4 pci/l-4	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l/. Z
RFW Batch Number: RFW Batch Number: RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha Uranium 233, 234 Uranium 235	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 € 5 pci/l.9 2.9 ± 1.0 pci/l.7	3100-758-100 SM094001D UNFILTERED 9612-29790-8-5 120 + 70 pci/l 100 + 30 pci/l 70 4 4 pci/l.44 1.9 4 0.7 pci/l./0	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l / Z 3.3 ± 1.4 pci/l · 4
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKA 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 € 5 pci/l, 9 2.9 ± 1.0 pci/l.7 48 € 4 pci/l.7	3188-758-188 SW894881D UNFILTERED 9612-29798-8-5 128 ± 78 pci/l 188 ± 38 pci/l 78 ± 4 pci/l.4 1.9 ± 8.7 pci/l.10 48 ± 4 pci/l.60	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l / 2 3.3 ± 1.4 pci/l .4 51 ± 5 pci/l .7
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKA 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 ± 5 pci/l, 7 2.9 ± 1.0 pci/l.7 48 ± 4 pci/l -0.2 ± 0.4 pci/l	3188-758-188 SW894881D UNFILTERED 9612-29798-8-5 128 ± 78 pci/l 188 ± 38 pci/l 78 ± 4 pci/l ./0 48 ± 4 pci/l ./0 -8.2 ± 8.4 pci/l	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l / Z 3.3 ± 1.4 pci/l / 4 51 ± 5 pci/l · 7 -0.3 ± 0.5 pci/l
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 € 5 pci/l, 9 2.9 € 1.0 pci/l, 7 48 € 4 pci/l, 7 -0.2 ± 0.4 pci/l 0.01 € 0.01 pci/l, 003	3188-758-188 SW894881D UNFILTERED 9612-29798-8-5 128 ± 78 pci/l 188 ± 38 pci/l 78 ± 4 pci/l.44 1.9 ± 8.7 pci/l.60 -8.2 ± 8.4 pci/l 8.79 ± 8.86 pci/l	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l Z 3.3 ± 1.4 pci/l . 7 pci/l . 7 -0.3 ± 0.5 pci/l 0.00 ± 0.01 pci/l . 0 o 3
RFW Batch Number: RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 ± 5 pci/l, 9 2.9 ± 1.0 pci/l.7 48 ± 4 pci/l.7 -0.2 ± 0.4 pci/l 0.01 ± 0.01 pci/l.003 -0.01 ± 0.01 pci/l.003	3188-758-188 SW894881D UNFILTERED 9612-29798-8-5 128 ± 78 pci/l 188 ± 38 pci/l 78 ± 4 pci/l 1.9 ± 8.7 pci/l ./O 48 ± 4 pci/l ./O -8.2 ± 8.4 pci/l 8.79 ± 8.86 pci/l .00 4 8.29 ± 8.84 pci/l .00 4	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l / 2 3.3 ± 1.4 pci/l · 4 51 ± 5 pci/l 0.0 ± 0.5 pci/l 0.00 ± 0.51 pci/l · 0.3 0.51 ± 0.51 pci/l
RFW Batch Number: Sample Information RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID:	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 € 5 pci/l, 9 2.9 € 1.0 pci/l, 7 48 € 4 pci/l, 7 -0.2 ± 0.4 pci/l 0.01 € 0.01 pci/l, 003	3188-758-188 SW894881D UNFILTERED 9612-29798-8-5 128 ± 78 pci/l 188 ± 38 pci/l 78 ± 4 pci/l · 4 1.9 ± 8.7 pci/l · 10 48 ± 4 pci/l · 60 -8.2 ± 8.4 pci/l 8.79 ± 8.86 pci/l · 00 4 8.29 ± 8.84 pci/l · 00 4 8.1 ± 8.7 pci/l	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l Z 3.3 ± 1.4 pci/l . 7 pci/l . 7 -0.3 ± 0.5 pci/l 0.00 ± 0.01 pci/l . 0 o 3
RFW Batch Number: RFW Batch ID: Customer ID: ACCU-LABS SAMPLE ID: Matrix: Radio Chemistry Gross Alpha	Client: ROCKW 3100-757-100 SW095001 FILTERED 9612-29790-8-4 110 ± 60 pci/l 130 ± 30 pci/l 74 ± 5 pci/l, 9 2.9 ± 1.0 pci/l.7 48 ± 4 pci/l.7 -0.2 ± 0.4 pci/l 0.01 ± 0.01 pci/l.003 -0.01 ± 0.01 pci/l.003	3188-758-188 SW894881D UNFILTERED 9612-29798-8-5 128 ± 78 pci/l 188 ± 38 pci/l 78 ± 4 pci/l 1.9 ± 8.7 pci/l ./O 48 ± 4 pci/l ./O -8.2 ± 8.4 pci/l 8.79 ± 8.86 pci/l .00 4 8.29 ± 8.84 pci/l .00 4	3100-759-100 SW094001D FILTERED 9612-29790-8-6 170 ± 70 pci/l 110 ± 30 pci/l 80 ± 7 pci/l / 2 3.3 ± 1.4 pci/l · 4 51 ± 5 pci/l 0.0 ± 0.5 pci/l 0.00 ± 0.51 pci/l · 0.3 0.51 ± 0.51 pci/l

MJ5032789002

WEST ON A	WEST ON Allery and See Simple	*									
		Refrigerator	pr#	_]		-				WESTON Analytics Use Only
	-	#/Type Container	tainer	1010.4 3 166	Ja4 1 / 145						Samples Were:
Client	ROCKWEIL (ROCK) FIRES	-	- may r	gallon 19	Ag Soli Som						1 Shipped or Hand-
Work Order	20.00	Preservative			- qmH						NOTES:
Date Rec'd	Tane 11 Bereman	AMAIVEE			_						
RFW ContactClient Contact/Phone	(303) 9	REQUESTED	A S	<u>ر</u> .	لا ()						2 Ambient of Chilled NOTES:
WA Use Only	Client ID/Description	Matrix C	Date Collected	engang						af .	3 Received Broken/
3	> 100HOMS	<u>^</u> 	1-77-89	× ス	X			$\frac{1}{1}$			Sealed!
-	Sw015001	シ		メ	X						\ N \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
2	Sino 94001 D	3	**************************************	X ×	X		-	-			NOTES:
	5m 24m + 4m + 4m 5 - 14m 5 -										4 Properly Preserved
7		<u></u>	→	×	×			 			~ へ と
		, vi		ga tri t							MOTE8:
			No.				-				5 Received Within
			n signer n n signer	Seat of the seat o					ě		Holding Times
			la de la constitución de la cons								NOTES:
			7 mm. 1 mm. 1 mm. 1 mm.								
			ong constitution of the co	e e des	·						COC Tape Was:
		en g	engent engent	Tree o				la N			uter ;
			der in	i de la companya de l						2). 2 25.	2 Unbroken on Outer
		agen	Calphan Call Canada	- ** -							Package (Y
			200.00	- A				*			3 Present on Sample N
1 5	W - Water DS - Drum Solids X - Other O - Oil DL - Drum Liquids F - Fish	Special Instruction:	uctions ha		7-Am241		10-Ra228		f-filtered u-unfiltered	bred Lered	4 Unbroken op Sample NOTES: Y N
solid .	M-wpe L- Livical L	Timo	Itom/Roscon	€H-	Relinguished by	1 A B	Received by	od by	Date	Time	COC Record Was:
Item/Heason	Will After 1 Heceived Da	1_	_	╁╌					├─-		of Samples Y
	75	E	32								Discrepancies Between
	0							Ą			Sample Labels and COC
											Record? Y N
				,		y *					NOTES:

ER PROGRAM DATA ASSESSMENT SUMMARY REPORT FORM

Bat	ch No. <u>8903L833</u>		Site <u>S</u>	Site Backgrou	nd Characteri	zation
Lat	oratory Roy F. Weston-Lionville		No. of	Samples/Ma	trix 8/Wate	r
SO	W # _ 7/87		Review	wer Org. <u>Te</u> c	hLaw, Inc.	
	nple Numbers <u>SW094001 (total), SW</u> 7094001 (soluble), SW094001D (soluble)					(total),
		Data Assess	ment Summa	ary		
		ICP	AA	Hg	CN	Comments
1.	Holding Times	v	<u>v</u>	v	_ <u>v</u>	
2.	Calibrations	v	<u>v</u>	v	_ <u>v</u>	
3.	Blanks	A	A	A	<u>v</u>	Action Items 1-4
4.	ICP Interference Check Sample	A	N/A	N/A	N/A	Action Item 5
5.	Lab Control Sample Results	v	v	v	v	****
6.	Duplicate Sample Results	v	<u></u>	v	v	
7.	Matrix Spike Sample Results	A	A	<u>v</u>	<u>v</u>	Action Items 6-11
8.	Method of Standard Addition	_N/A	v	_N/A	N/A_	
9.	Serial Dilution	v	N/A_	_N/A	N/A	
10.	Sample Verification	v		v	v	···
11.	Other QC	v	v	v	v	· · · · · · · · · · · · · · · · · · ·
12.	Overall Assessment	_A	A	A	v	Data valid, or acceptable with qualifications
	 V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. 				N/A = Not app	olicable.
Dat	a Quality: Data contained in this batch we	re reviewed an	d found to be va	lid, or acceptable	e with qualificat	ions. Acceptable,
qual	ified data may be used provided that individua	al values impac	ted by the "Action	on Items" listed	below are appro	priately flagged.
(Ref	er to attached Results Summary Tables).					

Action Items: 1) Calcium, Iron, and Magnesium values for SW094001FB (total and soluble) are estimated
and undetected (UJ) because analyte values >IDL were found in the blanks.
2) Lead values for SW094001 (total), SW095001 (total), and SW094001FB (soluble) are estimated and
undetected (UJ) because Lead values >IDL were found in the blanks.
3) All Mercury values except SW094001FB (total and soluble) are estimated and undetected (UI) because
mercury values >IDL were found in the blanks.
4) All Vanadium values are estimated (J) because of negative bias indicated in the blanks.
5) Zinc, Manganese, Copper, and Beryllium values for SW094001 (total and soluble), SW095001 (total and
soluble), and SW094001D (total and soluble) are estimated (J) because of possible Calcium and Sodium
interference as indicated in the Interference Check Sample.
6) All Silver values are estimated (UJ) because the matrix spike recovery was outside control limits.
7) Selenium values for all samples except SW094001FB (total and soluble) are estimated (J) because the
pre-digestion matrix spike recovery was outside control limits.
8) Selenium values for SW094001FB (total and soluble) are rejected (R) because the pre-digestion matrix
spike recovery was <30%.
9) The Arsenic value for SW095001 (total) and SW094001D (soluble) are estimated (J) because the
post-digestion matrix spike recovery was outside control limits.
10) The Thallium non-detect for SW094001 (total) is estimated and undetected (UJ) because the
post-digestion matrix spike recovery was outside control limits.
11) All Lead non-detects are estimated and undetected (UJ) because the post-digestion matrix spike recovery
was outside control limits.

Comments: None	
Note: Data Summary Tables are attached.	
$\bigcap \bigcap $	
(to let 1. 7) . ()	11/190
John Jayou	1/12/10
Reviewer Signature	Date

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SITE NAME: Site Background Characterization
CLP WATER INORGANIC ANALYSIS: Low Water

ANALYTICAL RESULTS (ug/L)

Sample Location	5			L		L								-			
Sample Number	٦.		SW094001	SW095001	95001	SW094001FB	OIFB	SW094001D	T	SW094001	SW094001D	5	SWOODOOTER	SWNOSOO	5		
Sample Date			3/30/89	3/30/	8	3/30/89		3/30/89	T	3/30/89	3/30/89	Т	3/30/89	7		1	
Remarks			Total	Total		Total		Total	ľ	Soluble	Soluble	T	Solubia	Soletion of			
Inorganic		۵۲				L			T			Ī					
Analyte		rgy Par	٥	g	8		8		8	õ		g	8		g		
Alumhum	₹	8	238 ^	517	>	30.4	>	247	۷	196 V	224	>	30.4 V	202	>		
Antlmony	SP SP	8	50.0 U	800	>	50.0 U	^	50.0 U	۸	50.0 U	50.0 U	>	50.0 U		>		
Arsenic	As	٤	1.3 U V	1.3	٧	1.3 U	٧	1.3 U	۱ /	1.3U V	1.5.1	4	1.3 U V	Т	>		
Barlum	Ва	8	157 V	<u>‡</u>	>	5.8 U	۸	154	>	14t >	151	Т	5.8 U V	Т	>		
Beryllum	Be	9	1.2.J A	12.1	4	0.2 U	^	1.2.1	٥ ٧	0.8 J A	1.2.1	4	0.2 U V	12.1	4		
Cadmium	8	۵	2.2 U V	2.2 U	>	22 U	>	2.2 U	۷ 2	22U V	22 U	>	2.2 U V	1	>		
Calcium	ð	2009	368000 V	32000	>	102 UJ	∢	363000	۷	A 0000EE	360000	>	38.5 UJ A	328000	>		
Cestum	ő	8	1000 L	8	>	1000 U	>	1000 U	۷ ا	V U 0001	1000 U	>	1000 L	1000 U	>		
Chromium	ŏ	٥	2.6 U V	2.8 U	>	2.6 ∪	>	2.6 U	۷ ک	2.6 U ∨	2.8 ∪	>		2,8 ∪			
Cobalt	8	8	4.0 U V	4.0 U	>	4.0 U	>	4.0 U	۷ 4.	4.0 U V	4.0 U	>	4.0 U	4.4	>		
Copper	õ	22	21.2.J A	19.0	4	2.5	>	18.7 J	A 15	19.7 J A	20.2 J	<	3.2 V	19.9 J	4		
Iron	-	ē	121 V	88	>	8.0 UJ	4	132	7	78.6 V	112	>	18.3 UJ A	222	>		
Lead		Т	1.8 UJ A	2.2 U	4	1.6 UJ	>	1.5 W	Α.	1.5 UJ A	1.5 UJ	4	1.7 W A	1.5 W	4		
Lithlum			400 \	4	>	100 L	>	483	A 496	k A	491	4	100 U A	445	>		
Magnesium		$\overline{}$	v 000001	T	>	34.4 UJ	4	98800	» >	V 00788	97300	۷	18.7 UJ A	8800	>		
Manganese		2	19.2 J A	33.3	4	1.0	>	19.5 J	A 18	18.2 J A	16.5 J	۷ ۷	V V	16.1 J	4		
Mercury	-	Т	0.25 UJ A	0.15 U	A U	0.10 U	>	0.30 UJ	A 0.	0.20 UJ A	0.25 UJ	0 V	0.10 U	0.25 UJ	4		
Мођффенит		Т	100 U	<u>8</u>	>	100 U	>	100 L	>	100 U V	100 U	>	100 U V	8 ⊃	>		
Nickel		Т	8.9		>	6.5 U	>	11.5	V 9.6	>	8.5	۸ ا	6.5 U V	9.6	>		
Potassium		808	76900 V	67200	>	U 599	>	76000	8 >	v 00989	76100	۸	v ∪ 599	88200	>		
Selenium	Se	Т	16.2 J A	<u>1</u>	A	1.8 U	Œ	14.8 J	4	142J A	14.6 J	4	1.8 U R	11.6 J	<		
Silver	-				٧	6.7 UJ	4	8.7 UJ	Α 6.	8.7 UJ A	6.7 UJ	Α 6	6.7 UJ A	6.7 UJ	4		
Sodium			اء		>	566	>	544000	S >	200000 V	543000	۷ ج	52.6 U V	498000	>		
Strontlum	١		3280 ^	883	>	100 L	>	3230	<u>श</u> >	2940 V	3180	7	100 U	2870	>		
Thallium	١		31.0 UJ A	3.0	>	3.1 U	>	31.0 U	ر م	31.0 U	31.0 U	۷ 3	3.1 U V	31.0 U	>	-	
타		T	116 V	0 0 0 0	>	100 U	>	114	의 >	100 U V	114	7	100 U V	100 E	>		
Vanadlum		T	12.0 J A	502	4	22.3	4	12.BJ	A 4.7.J	', A	12.3 J	A 9.	8.2 J A	8.7 J	<		
Zhc	5	Ī		39.1	V	11.3	>	25.7 J	¥	28.9 J A	28.9	>	4.2.J A	24.8 J	4		
Cyanide		의	10.0 U	10.0 U	>	10.0 U	7	10.0 U	≥		NA RA	2	N.W.	R/A			
												:				l	

E Estimated by the Laboratory
U indicates the compound was not detected above the instrument Quantitation Limit
J Quantitation is approximate due to firmitations identified during the quality control review
DL Detection Limit in Micrograms per Liter (ug/L)
NR Not reported

DQ Data Qualifler V Valid

A Acceptable with qualifications R Rejected

L833L/rk20J

WEST I	WESTON Analytics Use Only Samples Were: (Shipped or Hand-Delivered NOTES: 2 Ambient or Chilled) NOTES: 3 Received Broken/Leaking (Improperly Sealed) Y NOTES: AProperly Preserved NOTES: AProperly Preserved NOTES: ANOTES: NOTES: NOTES: NOTES: NOTES: NOTES: NOTES: NOTES: NOTES:	COC Tape Was: 1 Present on Outer Package (V) 2 Unbroken on Outer Package (V) 3 Present on Sample NOTES: COC Record Was: 1 Present Upon Receipt of Sample Labels and COC Record? Y NOTES: NOTES: Y NOTES:
2		
Fransfer Record/Lab Work Request		Beceived by Dete
Sord/Lab W	THE ST CHANNEL STREET	A - pest pob (A) - pe
ansfer Rec	See Soutainer See See See See See See See See See S	Tiltered tol meta 100
Custody Tr	#The Analy Preserve Analy Read Analy	1 1 1 1 1 1 1 1 1 1
	Client 3-20-29 - 64 - 38 - 01 Work Order 2029-39-64 - 38 - 01 Bate Rec'd. 3-20-34 Date Due 4-37-89 RFW Contact Sanction 1 Section 4-37-89 WA Use Only Sanction 100 Description Client Expense Client IDDescription COS Sanction C	T. Solids I Become
WESTON Analytics Use Only	20 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -	
WEST	Client Work Order Date Rec'd. RFW Contact Client Contact COO COO COO COO COO COO COO COO COO CO	Matrix: W - Wat 8 - Soli O - Oil 9E - Solid M - Mir 9O - Solid W1 - Wip Item/Reason Reli